IN THE CLAIMS

The claims are amended as set forth below.

1-26. (Cancelled)

27. (Currently Amended) A method for producing homogenous cavitation at an area of skin comprising:

creating a volume of fluid adjacent the area of skin, said fluid having a uniformly dispersed concentration of a fluorocarbon therein, said fluorocarbon facilitating the production of cavitation; and

applying ultrasound to the volume of fluid;

wherein the ultrasound causes cavitation in the fluid, evaporation of the fluorocarbon and the creation of gas bubbles in the [coupling medium] fluid.

28. (Original) The method of claim 27 further comprising delivering a substance through the area of skin.

29. (Original) The method of claim 27 further comprising extracting analyte through the area of skin.

30. (Currently Amended) A method for producing homogenous cavitation at an area of skin comprising:

creating a volume of fluid adjacent the area of skin, said fluid having a uniformly dispersed concentration of a first substance therein, said first substance facilitating the production of cavitation;

applying ultrasound to the volume of fluid;

wherein the ultrasound causes cavitation in the fluid; and wherein the first substance is a surfactant that facilitates the occurrence of cavitation when the [coupling] fluid is exposed to ultrasound.

31. (Cancelled)

32. (Currently Amended) The method of claim 30 further comprising delivering a second substance through the area of skin.

33. (Original) The method of claim 30 further comprising extracting analyte through the area of skin.

34-39. (Cancelled)

40. (New) The method of claim 27, wherein said fluorocarbon is perfluoropentane or perfluorohexane.

41. (New) The method of claim 27, wherein said concentration of a fluorocarbon is 5 to 10 mg/ml.

42. (New) The method of claim 30, wherein said surfactant is lauryl sulfate.

43. (New) The method of claim 30, wherein said surfactant is a fatty alcohol.

44. (New) The method of claim 43, wherein said fatty alcohol is dodecanol.

45. (New) A method for producing evenly dispersed cavitation comprising:

creating a volume of fluid adjacent the area of skin, said fluid having a uniformly dispersed concentration of cavitation nuclei therein, said cavitation nuclei facilitating the production of evenly dispersed cavitation; and

applying ultrasound to the volume of fluid;

wherein the ultrasound causes cavitation in the fluid.

46. (New) The method of claim 45, wherein said cavitation nuclei comprises a ceramic.

47. (New) The method of claim 45, wherein said cavitation nuclei comprises polystyrene.

48. (New) The method of claim 45, wherein said cavitation nuclei comprises titanium dioxide.

49. (New) The method of claim 45, wherein said cavitation nuclei comprises a metal.

50. (New) The method of claim 45, wherein said cavitation nuclei comprises a polymer.

51. (New) The method of claim 45, wherein said cavitation nuclei comprises particles having a diameter substantially equal to 1 to 20 microns.

52. (New) The method of claim 45, wherein said concentration is substantially equal to 5 to 10 mg/ml.